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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,328	08/18/2003	Alfredo Edwin Gunara	IDF 2281 4000-12100	4005

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EXAMINER	
FRANCIS, MARK P	

ART UNIT	PAPER NUMBER
2193	

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/643,328	GUNARA ET AL.	
	Examiner	Art Unit	
	Mark P. Francis	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22,24-32 and 34-38* is/are rejected.

7)☒ Claim(s) *23 and 33* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/01/04;06/25/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the application filed on August 18, 2003.

2. Claims 1-38 have been examined.

Oath/Declaration

3. The Office acknowledges receipt of a properly signed oath/declaration filed August 18, 2003.

Priority Date

4. The Office acknowledges the priority date of this application is August 19, 2002.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-12 and 13-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

According to the 101 Interim Guidelines, The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had "no substantial practical application."). "[An

application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection." Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also 21 Corning, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 ("It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . ."). In other words, the opposite meaning of "tangible" is "abstract."

Regarding claim 1,

Applicant defines a simulator tool for testing software that comprises of a simulator to test the software, an interface to promote communication between the simulator and the software, a message including a component being used by the simulator, and lastly a test controller that communicates the message to the simulator. These are all functional descriptive material that can be implemented using software means only, for instance computer programs per se, and that do not require the use of any form of computer readable storage medium to produce a tangible result of a practical application. Thus, the claim as a whole can be implemented using software means only and does not produce a result of a tangible practical application.

Regarding claim 13,

In this instance, the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to an environment or machine

which would result in a practical application that would produce a useful, concrete, and tangible result to form the basis of statutory subject matter under 35 USC 101.

According to the 101 Interim Guidelines, The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had "no substantial practical application."). "[An application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection." Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also 21 Corning, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 ("It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . ."). In other words, the opposite meaning of "tangible" is "abstract."

Applicant merely defines a method of testing software that comprises of providing a script to a test controller, communicating the script to a simulator, and testing the software by the simulator which are all software means that do not produce a tangible result. Applicant is merely testing the software by the simulator but does not define or disclose any sort of transformation or tangible result that occurs either from or during

the testing of the software performed by the simulator. Therefore, the claim is merely an abstract idea that can be implemented using software means only.

The rejection of the base claim are incorporated into their dependent claims.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

8. A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-22, 24-32 and 34-38 rejected under 35 U.S.C. 102(e) as being anticipated by Cleaveland. (U.S. PGPUB 2005/0160321)

Independent claims

With respect to claim 1, Cleaveland discloses A simulator tool for testing software, comprising:

a simulator to test the software;(Col 2:0025, "...such a tool is called a simulator...")an interface to promote communication between the simulator and the software;(Col 2:0019, "...exercise the active elements of a graphical user interface or web site...")

a message including a component utilized by the simulator to promote testing of the software;(Col 3:0044-0046, "...loads an file containing a previously constructed test suite...") and

a test controller(e.g. See Fig. 2 element 10 Guided Simulation Engine) operable to communicate the, message to the simulator, (Col 3:0035, "...a software artifact...", Col 3:0040-0044, "...reads in the software artifact...")

wherein the message is utilized by the simulator to test the software.(Col 3: 0035-0045, , "...and a file previously constructed test data...file containing a previously constructed test suite and converts this into an internal data structure...", e.g. See Fig. 2 and related text)

With respect to claim 13, Cleaveland discloses a method of testing software, comprising:

providing software under testing;(Col 3:0037-0039, "...for the Software_Under_Test...)

providing a script to a test controller;(Col 3:0038-0041, "...The Guided Simulation engine is responsible for constructing a set of tests, each consisting of a sequence of input/output pairs generated by the SUT...")

communicating the script,(Col 3:0035, "...a software artifact in the form of a piece of source code...") by the test controller, to a simulator simulating

an application that communicates with the software under testing; (Col 3:0038-0042, "...the simulator reads in the software artifact...")

and

testing the software by the simulator performing the script.(Col 3:0045-0048, "...The test data is then fed into the Simulator...which computes the corresponding simulation steps, updates coverage information...")

With respect to claim 18, Cleaveland discloses a system for testing software, comprising:

a test scenario operable to maintain a message;(Col 3:0028-0037, "...automatic test-case generation...")

a simulator to simulate an application in communication with the software to be tested; (Col 2:0025, "...such a tool is called a simulator...")

a test controller operable to obtain the message from the test scenario and communicate at least a portion of the message to the simulator; .(Col 3:0045-0048, "...The test data is then fed into the Simulator...which computes the corresponding simulation steps, updates coverage information...")

and

a tool to develop at least a portion of the message and provide the at least portion of the message to the test scenario.(Col 2:0025-0027, "...such a tool is called a simulator...", Col 3:0040-0045, "...the Simulator reads in the software artifact...")

Dependent claims

With respect to claim 2, the rejection of claim 1 is incorporated and further, Cleaveland discloses that the simulator is further defined as a test environment simulating at least a portion of an application with which the software is intended to communicate.(Col 3:0037-0038, "...The simulator...for the Software-Under-Test...")

With respect to claims 3 and 14, the rejection of claims 1 and 13 are incorporated respectively and further, Cleaveland discloses that the message is a test script including a message component and data component.(Col 3:0035, "...a software artifact in the form of a piece of source code...", Col 3:0035-0040, "...constraints on the input values...")

With respect to claim 4, the rejection of claim 3 is incorporated and further, Cleaveland discloses that the message component includes a directional component instructing the simulator regarding a direction of the communication between the simulator and the software. (Col 3:0035-0040, "...constraints on the input values...to track coverage information...")

With respect to claim 5, the rejection of claim 1 is incorporated and further, Cleaveland discloses further comprising a plurality of simulators to test the software and wherein the interface is operable to promote communication between at least one of the plurality of simulators and the software.(Col 2:0019-0020, "...graphical user interface...")

With respect to claim 6 and 37, the rejection of claims 1 and 18 are incorporated respectively and further, Cleaveland discloses that the software is further defined as a software component.(Col 3:0037-0042, "...applied to the SUT,...")

With respect to claim 7, the rejection of claim 1 is incorporated and further, Cleaveland discloses further comprising a middleware in communication with the interface and the software.(e.g. See Fig. 2, element Test Data Generator and related text)

With respect to claim 8, the rejection of claim 1 is incorporated and further, Cleaveland discloses further comprising a second simulator to test the software, wherein message includes an identifier component associated with one of the simulator and second simulator such that the test controller operably directs the component of the message to one of the simulator and second simulator associated with the identifier component of the message. (Col 3:0035, "...a software artifact in the form of a piece of source code...", Col 3:0035-0040, "...constraints on the input values...")

With respect to claim 9, the rejection of claim 8 is incorporated and further, Cleaveland discloses further comprising a plurality of interfaces to promote communication between a plurality of simulators and at least one software under test.(Col 3:0035-0040, "...The simulator is responsible for executing simulation steps...")

With respect to claims 10 and 31, the rejection of claims 8 and 18 are incorporated respectively and further, Cleaveland discloses that message includes a plurality of Testing scenarios and wherein the test controller is operable to communicate the testing scenario to at least one of the simulator an second simulator to execute the plurality of testing scenarios sequentially. (Col 3:0028-0038, "...automatic test-case generation...")

With respect to claim 11, the rejection of claim 8 is incorporated and further, Cleaveland discloses that message includes a plurality of testing scenarios and wherein the test controller is operable to communicate the testing scenarios to at least on of the simulator and second simulator to execute the plurality of testing scenarios concurrently. (Col 3:0028-0038, "...automatic test-case generation...")

With respect to claims 12 and 32, the rejection of claims 11 is incorporated and further, Cleaveland discloses that the test controller is operable to communicate one of the plurality of testing scenarios to the simulator and another of the plurality of testing scenarios to the second simulator such that the simulator and second simulator operably test the software utilizing the test scenarios in a substantially simultaneous manner. (Col 3:0028-0038, "...automatic test-case generation...")

With respect to claim 15, the rejection of claim 14 is incorporated and further, Cleaveland discloses that the message component of the script directs the simulator to

wait to receive a response from the software being tested.(Col 3:0037-0040, "...generates in response to a given set of inputs...")

With respect to claim 16, the rejection of claim 14 is incorporated and further, Cleaveland discloses that the message component of the script directs the simulator to transmit at least a component of the data to the software. (Col 3:0037-0040, "...generates in response to a given set of inputs...")

With respect to claim 17, the rejection of claim 13 is incorporated and further, Cleaveland discloses that the script includes a plurality of messages, a component of the message directing the test controller to transmit the message to one of a plurality of simulators operable to test the software. (Col 3:0028-0038, "...automatic test-case generation...")

With respect to claim 19, the rejection of claim 18 is incorporated and further, Cleaveland discloses that the simulator simulates the application to test the software by utilizing the portion of the message. (Col 3:0035-0040, "...the Simulator reads in the software artifact...")

With respect to claim 20, the rejection of claim 18 is incorporated and further, Cleaveland discloses that the message is further defined as having

a script portion and a data portion. (Col 3:0035, "...a software artifact in the form of a piece of source code...", Col 3:0035-0040, "...constraints on the input values...")

With respect to claim 21, the rejection of claim 20 is incorporated and further, Cleaveland discloses that the tool is operable develop the script portion of the message. (Col 2:0025-0027, "...such a tool is called a simulator...")

With respect to claim 22, the rejection of claim 21 is incorporated and further, Cleaveland discloses that a portion of the script portion of the message is associated with an identification of the simulator.(Col 3:0038-0045, "...used to track coverage information...")

With respect to claim 24, the rejection of claim 21 is incorporated and further, Cleaveland discloses that a portion of the script portion includes an expected value. (Col 4:0047, "...that its value must fall...")

With respect to claim 25, the rejection of claim 20 is incorporated and further, Cleaveland discloses that a portion of the script portion includes a delay between execution of the message and a second message. (Col 3:0037-0045, "...when the sequence of inputs is applied to the SUT...")

With respect to claim 26, the rejection of claim 20 is incorporated and further, Cleaveland discloses that the tool is operable develop the data portion of the message by associating a data object with the data portion of the message. (Col 3:0035, "...a software artifact in the form of a piece of source code...", Col 3:0035-0040, "...constraints on the input values...")

With respect to claim 27, the rejection of claim 20 is incorporated and further, Cleaveland discloses that the tool is operable to develop the data portion of the message by receiving test data. (Col 2:0025-0027, "...such a tool is called a simulator...")

With respect to claim 28, the rejection of claim 27 is incorporated and further, Cleaveland discloses that the simulator is operable such that the test data is passed by the simulator to the software to be tested. (e.g. See Fig. 2 element 3, Pre-exiting test data)

With respect to claim 29, the rejection of claim 27 is incorporated and further, Cleaveland discloses that the simulator is operable such that the test data is compared by the simulator to data received from the software to be tested. (Col 3:0028-0038, "...a simulator to drive the software from one state to another...")

With respect to claim 30, the rejection of claim 18 is incorporated and further, Cleaveland discloses that the messages each include an instruction component and wherein the simulator is operable to receive the message from the test controller and execute the instruction component: simulating the application in communication with the software to test the software. (Col 3:0028-0038, "...a simulator to drive the software from one state to another...")

With respect to claim 32, the rejection of claim 18 is incorporated and further, Cleaveland discloses that the system further includes a second Simulator and wherein the tool is operable to develop a plurality of messages in a manner such that the test controller promotes execution of the plurality of messages by at least one of the simulator and second simulator in a substantially consecutive manner. (Col 3:0035, "...a software artifact in the form of a piece of source code...", Col 3:0035-0040, "...constraints on the input values...")

With respect to claim 34, the rejection of claim 18 is incorporated and further, Cleaveland discloses that the tool is operable to develop the message as a reusable

object. (Col 2:0025, "...a tool is called a simulator...",Col 3:0037-0045, "...when the sequence of inputs is applied to the SUT...")

With respect to claim 35, the rejection of claim 34 is incorporated and further, Cleaveland discloses that the tool is operable to change the order by which the plurality of messages is executed without modifying a content of the message. (Col 3:0035, "...a software artifact in the form of a piece of source code...", Col 3:0035-0040, "...constraints on the input values...")

With respect to claim 36, the rejection of claim 34 is incorporated and further, Cleaveland discloses that the tool is operable to adjust a position of one or more of the plurality of message in the test scenario and thereby change the order by which the plurality of messages are executed. (Col 3:0035, "...a software artifact in the form of a piece of source code...", Col 3:0035-0040, "...constraints on the input values...")

With respect to claim 38, the rejection of claim 18 is incorporated and further, Cleaveland discloses that the software is further defined as an application. (Col 3:0035-0038, "...executable model of a piece of software...")

Allowable Subject Matter

10. Claims 23 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark P. Francis whose telephone number is (571) 272-7956. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Mark P. Francis

Patent Examiner

Art Unit 2193